

**ABSTRACT**

The present invention relates to a resonator for attenuating pressure pulsations received through an air passage. A piston-type member is located within a resonator chamber to define first and second volumes. A first port connects the air passage with the first volume, while a second port connects the air passage with the second volume. An actuator is configured to move the piston-type member thereby changing the first and second volumes. By changing the first and second volumes and selectively connecting them to the air passage, the frequency range attenuated by the resonator can be adjusted.